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Near the four main central posts (*P*) stakes of the height of a man are driven into the ground. On their upper ends, which are fastened with thongs to the main posts, cross-pieces are put, upon which clothes, shoes, and other household goods are hung. There is no such cross-piece on the side where the hearth is; but above the hearth, across the entire width of the house, several stout timbers are placed, their ends being tied with thongs to the upper cross-beams. These form a grating, upon which clothes, shoes, and wood are put to dry. To these poles, hooks of wood, iron, or reindeer-antler, are attached, from which pots and kettles are suspended over the fire (see Fig. 61 and Plate xx).

The corners of the house, the spaces between the sleeping-places, and the place for visitors, are ordinarily used for storage purposes. Nets, dogs' harness, hunting-implements, snowshoes, tools, and other things, are hung up there. A large iron pot for water, dishes, tea-kettles, wooden and leather pails, and chamber-vessels (see Plate xx) are kept on the side of the door leading to the entrance-room.

If, as appears to me, the tent of the Reindeer Koryak is built after the type of the dwelling of the Asiatic nomads, but adapted to the needs of the arctic climate, so the underground house of the Maritime Koryak represents a type of palæ-Asiatic-American dwelling. We do not find such a dwelling among the Turkish-Mongolian tribes. All so-called palæ-Asiatic tribes formerly had, or now have, underground houses similar to the house of the Koryak type. The ancient Kamchadal dwelling as described by Steller[1] differed from the present-day house of the Maritime Koryak only by the absence of the umbrella-shaped storm-roof, by having no entrance-room, and by having notches instead of holes in its ladder.

The Kerek do not build storm-roofs, because of their lack of the required timber.[2] I also found on the Tilqai River[3] one Koryak house without a funnel. It stood in a forest where the winds were not so violent. According to the Koryak belief, the houses of evil spirits (kalau) have no storm-roofs. We may rightly suppose that this peculiar part of the construction, which we find only among the Koryak, is not characteristic of the general type of this dwelling.

The dwelling of the Kamchadal has no entrance-room, for the underground house serves them as a winter dwelling only; but among the Koryak the entrance through the ante-room is also closed up for the winter. In the Kamchadal dwelling, an underground passage leading out from the hearth[4] takes the place of the ante-room of the Koryak. Women, children, and men transformed[5] into women, used to go in and out through this passage. It

[1] Steller, p. 212.
[2] Bogoras, The Chukchee, Vol VII of this series, p. 183.
[3] See p. 437.
[4] See the cut in Steller, p. 213; Krasheninnikoff, II, p. 40.
[5] See Part I, p. 52.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

of the reindeer. All that has been described in detail by Mr. Bogoras.[1] I shall confine myself, therefore, to giving some additional information and to indicating some points of difference.

Food of Reindeer. — In summer, as is well known, the reindeer like fresh grass, especially the young sprouts of reed-grass, the leaves of the birch, willow, and poplar, as well as mushrooms. In winter they feed exclusively on lichens;[2] but wherever the horse-tail (*Equisetum scirpoides* Mich.[3]) is to be found, they readily eat it in the winter as well, and frequently prefer it to lichens. But this low-growing weed is found only in certain localities, — in the sandy valleys of mountain-streams, where, in some places, it thickly covers large areas. In spite of the fact that in winter it is covered up with snow, the reindeer discover it by their sense of smell, as they do the lichen. More than once in the winter, I had an opportunity to see, in the mountain-valleys between the Indighirka and Yana Rivers, how ravenously the reindeer devoured that plant. The Tungus told me that they fatten on it, the same as do horses. It retains its juice throughout the winter, and does not dry up like grasses. During the winter the reindeer in the woods also eat lichens growing on trunks of trees.

When the reindeer feed exclusively on lichens, they acquire a special longing for the urine of human beings. This longing attracts them to human habitations. Fig. 63 represents a vessel (qoya'-oča'-lăn, which signifies "the reindeer's night-chamber") made of seal-skin, which every herdsman carries suspended from his belt, and of which he makes use whenever he desires to urinate, that he may keep the urine as a means of attraction in capturing refractory reindeer. Quite frequently the reindeer come running to camp from a far-off pasture to taste of snow saturated with urine, a delicacy to them. The reindeer have a keen sense of hearing and of smell, but their sight is rather poor. A man stopping to urinate in the open attracts reindeer from afar, which, following the sense of smell, will run to the urine, hardly discerning the man, and paying no attention to him. The position of a man standing up in the open while urinating is rather critical when he becomes the object of attention from reindeer coming down on him from all sides at full speed.

Fig. 63 ($\frac{1}{5}\frac{1}{7}\frac{1}{7}$). Vessel made of Seal-Skin. Length, 15 cm.

While subsisting exclusively on lichens, the reindeer develop also a liking for animal food. This peculiarity has been noticed by many travellers. It

[1] Bogoras, The Chukchee, Vol VII of this series, pp. 80—95.
[2] See p. 399.
[3] See p. 386.

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352 Fig. 101 shows a stool of the Reindeer Koryak. It is made of reindeer-antlers still attached to the frontal bone. The beams and two tines of the antlers serve as legs, and two boards are tied to them to make the seat. This chair seems to be an imitation of a Russian bench. Nowadays, however, it is often found with the Reindeer Koryak. The Maritime Koryak also use, instead of chairs, the boxes in which they keep the tea-dishes. On Plate XX a girl is shown sitting by the fireside on such a box, and the other one is 264 sitting in a crouching position. The use of tables is unknown to the Koryak.

352

Fig. 101 (1/17). Stool made of a Pair of Antlers. Height, 41 cm.

With the exception of the Russianized natives, they place a board or a trough-shaped dish on the skins on which they sit, and put the carved meat or fish, with seal-oil, on it. The people sit around and eat, taking up the pieces with their hands. Often the box in which the tea-dishes are kept serves as a table. Others have a table-board made of two or three planks, which is put on the box when they are eating, or drinking tea. However, in some houses of the Maritime Koryak, very small low tables, 30 cm. or 40 cm. high, may be found, at which the guests eat; but the Russianized Koryak of North Kamchatka and of the villages of the Okhotsk Sea south of the Gishiga River, who live in log-cabins, also use benches, chairs, tables, and beds, like their Russian neighbors.

252 With the introduction of metal cooking-vessels, these entirely superseded clay pots, and the method of cooking food by means of red-hot stones went 415 out of use. Nowadays cooking is done only in iron and copper kettles imported by merchants. The Koryak prize copper kettles particularly, as they 177 are durable; but they are not easily obtained, owing to their high price, and only the wealthy reindeer-breeders or Koryak engaged in trade or barter can afford to buy them. Such kettles last a very long time. Of course, the tin lining wears off very soon, but the Koryak continue to cook in them. 326] The Koryak smiths of the villages Paren and Kuel have learned to make kettles from imported sheet-iron. In imitation of our metal waterpails, they give them the shape of a truncated cone, with a wire handle by which to suspend them over the fire. These kettles do not last long. The thin sheet-iron soon burns through, or is eaten through by rust in the damp summer.

At present the teapot is another metal appurtanance of the household. The dealers import chiefly copper pots, but some are found of enamelled white iron.

1: Jochelson E-5 (1900-01) 1908 K94 Koryak K94

skin pails. The Maritime Koryak carry a supply of fresh water when hunting in their skin boats. In order to avoid the necessity of melting snow and ice, in winter, water is generally taken from ice-holes. All the settlements of the Maritime Koryak are situated on the banks or at the mouths of rivers. The Reindeer Koryak, too, place their tents in river valleys. Plate XXX, Fig. 1, represents an evening scene by an ice-hole in the village Big Itkana, where girls and boys come with buckets to fetch water for the night. The water is poured into the bucket with a wooden scoop. Water-buckets are made of strong thong-seal skin or of aspen or poplar wood. Fig. 104 shows a skin bucket. Among the Eskimo are found buckets of the same type, made of seal-skin and sewed together with sinew-thread.[1] They are carried in a different manner however. The Eskimo bucket has a handle made of a strip of leather, like a regular bucket-handle, while the Koryak bucket has two loops sewed on near the mouth. To these loops are tied the ends of a broad seal-skin carrying-strap, which is passed over the forehead, the bucket resting on the back, — a method of carrying burdens employed by many Indian tribes.

Fig. 104 (2184). Skin Bucket.

The thick wooden bucket is also cylindrical. The material is supplied by a part of a straight and solid trunk of an aspen or poplar tree, which is hollowed out by means of an adze, and finished with a simple knife. The wooden bottom is inserted from above. Wooden buckets are carried by women in the same way as seal-skin buckets (see Plate XXXV, Fig. 2).

The wooden bucket is used for many purposes: when hunting sea-mammals, it serves as a receptacle for the harpoon-heads; in the house, seal-oil is kept in it; berries are also kept in both wooden and skin buckets; soup for feeding dogs is carried out of the house in wooden buckets.

The material for spoons and ladles is furnished by the antlers of the reindeer and the horns of the mountain-sheep. Some are made of wood. Broth is sipped from deep ladles; thick porridge or gruel is eaten with spoons: therefore spoons are shallow (Fig. 105, *a*). Bone teaspoons (Fig. 105, *b*) are made in imitation of imported metal spoons. Wealthy Reindeer Koryak purchase metal table-spoons; some of them even have silver spoons.

Wooden plates, dishes, elongated platters and trays, and wooden and bone dippers, are of the same type as those of the Chukchee,[2] and I shall not

[1] See, for example, Kroeber, The Eskimo of Smith Sound, Fig. 31, p. 288; and Boas, Baffin-Land Eskimo, Fig. 142, p. 99.

[2] See Bogoras, The Chukchee, Vol. VII of this series, p. 189.

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dwell on their description. Among the wealthy Koryak, imported earthenware or enamelled iron plates may be found.

Fig. 106 represents a small wooden bucket with a lid, for picking berries. It is hollowed out in the same way as the large water-buckets, but it is furnished with two alder hoops, a lid, and a carrying-strap.

The chamber-vessel (Fig. 107) is an indispensable part of the household goods. The Koryak do not go out of doors at night to void urine, while children even go to stool indoors. The chamber-vessel is hollowed out of an aspen or poplar tree. It is usually made with the brim bent inward to

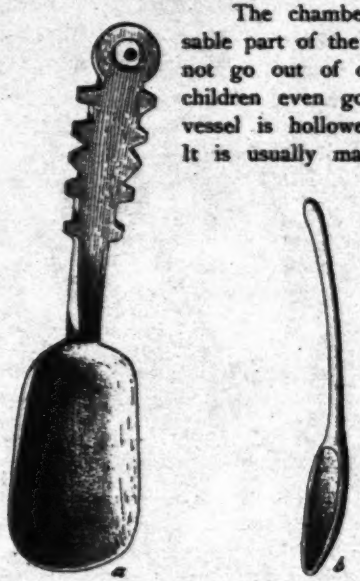

Fig. 105, *a* ($\frac{1}{11}$), Spoon made of Horn of Mountain-Sheep (Length, 20 cm.); *b* ($\frac{1}{11}$), Bone Teaspoon (length, 15 cm.).

Fig. 106 ($\frac{1}{11}$). Wooden Bucket Height, 26 cm.

prevent the contents from spilling when the vessel is carried up the ladder of the underground house. The Reindeer Koryak keep it in the corner of the inner sleeping-tent, and its shape prevents its being upset by sleepers. If the vessel is full, the mistress raises the edge of the front side of the tent and pours the contents out into the outer tent. In the morning the women carry it out of doors and pour the urine on the snow, which then attracts the reindeer.[1] Instead of

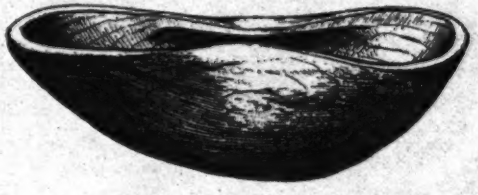

Fig. 107 ($\frac{1}{11}$). Chamber-Vessel. Length 59 cm.

[1] See p. 483.

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262 In settlements where dog-salmon is the main supply, this species of smelt is eaten by men only in the years when no dog-salmon has been caught. In years when there is plenty of dog-salmon, it is used only for making a soup for the dogs.

Sea-mammals, mainly seals, occupy a prominent place in the household of the Maritime Koryak; but since the supplies do not hold out long, meat of sea-mammals is not eaten often. Towards spring, hardly any storehouse contains meat of sea-mammals. In summer and autumn their meat, particularly that of young ones, is consumed in large quantities, and considered a more toothsome food than fish.

251 The meat of seals and other sea-mammals is principally eaten boiled. There is reason to think that in former times meat was cooked in clay pots. Late in autumn, when the killed seals freeze, the Koryak preserve them entire, if not wanted for immediate consumption. At other times they are cut up right after the hunt, lest they decay. The blubber is cut into pieces [415] and tried out. Until cold weather sets in, the oil is kept in bags made of a seal's stomach or of bladders. For this purpose a wooden pipe is inserted in the opening of the bladder or bag. It serves as a neck to the soft bottle, and is closed with a wooden or bone stopper, the edges of the bladder or stomach being fastened tight to the pipe with a sinew thread. In winter, seal-oil is frozen and cut with a knife as needed. The meat of gutted seals is cut into small pieces and placed in the storehouse in troughs or buckets, where it is preserved until cooking time. Seal-meat is sometimes dried in the sun in summer. It is cut into thin slices and hung up on the poles of drying-frames, or it is spread out on the ground. On journeys, seal-meat is also eaten raw, cut with a knife into small slices.

262 The meat of the white whale, on account of its taste, is prized more highly than seal-meat, and its oil is particularly well liked. The white-whale oil is entirely free from the unpleasant smell of seal-oil. A single white whale yields between six hundred and twelve hundred pounds, or more, of a light-colored oil, which congeals at 4° or 5° C. The fried skin of the white whale, too, is considered a dainty.

In Bering-Sea the meat of walrus and sea-lions is highly valued; but both animals are becoming more and more scarce, owing to their pursuit by poaching schooners. Walrus used to be particularly numerous in Karagha Bay and in the coves of Karagha Island. Even now, Koryak hunters, not only from the villages of Qare'nin and Kičhin, but also from Alut, undertake walrussing-expedition to Karagha Island in summer in their skin boats.

262 The reindeer is the source of the principal foodsupply of the Reindeer
252 Koryak. The marrow, kidney, liver, gristle, and tendons of the legs, which are torn off with the teeth, are eaten raw, after the reindeer is killed. The marrow is treated as a dainty. It is obtained by breaking the bone with a

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

262 boiled as a gruel. Most of the Koryak can rarely afford to have imported
439 food, as they have no money with which to buy it. Biscuits and fresh bread
also have the reputation of being good food; but these, too, very rarely come
[437] within their reach. In winter the cossaks and other Russian inhabitants take
bread to the Koryak villages and camps, and exchange it for reindeer-meat
and other products. Still the Koryak look upon biscuit and bread rather as
a dainty, and not as a real food on which a human being can subsist. I
have heard the Koryak say that when they eat too much bread, they suffer
from stomach-ache.

272 Tea came to be known after the people had come into contact with the
177 Russians. At present its use is wide-spread everywhere. Most of the Koryak,
however, have no tea in summer, as they lack the means to buy large
supplies. The kind of tea used is brick-tea. To make tea, the brick is
heated by the hearth, as a result of which it becomes soft and can be minced
with a knife. The minced tea is boiled in a tea-pot. The tea decoction is
strong, and almost black in color. Brick-tea is inferior to leaf-tea as a stimul-
272 ant. The Koryak drink much tea, ten and more cups in succession, and do
264 so several times a day, provided they find any one willing to treat them.
Usually the Koryak drink tea after meals; but when guests are feasted, a
light side-dish, like sun-dried fish, marrow from reindeer-legs, or berry-pudding,
is served first, then tea, and finally meat dishes. Tea is served in the same
order by the other inhabitants of northeastern Siberia; for instance, by the
● 415 Yakut, Tungus, and Yukaghir. A teapot and two or three cups of crockery
177 or enamelled ware, with saucers, are found in nearly every house. They are
preserved as treasures, in special boxes with holes chiselled out for the cups;
or they are wrapped in soft rags. In the absence of a sufficient number of
cups, they drink tea by turns, the women and children after the older people.
Visitors usually bring their own cups with them. . . The Koryak also have
home-made cups made of deer-antler and horn of the mountain-sheep. The
small tin cans in which our condensed milk was put up were very cleverly
turned into cups with tin handles. The Koryak drink the hottest tea from
them without burning their lips.

276 Narcotics and Stimulants. — The Koryak have also learned the use of
177 tobacco from the Russians, and, like all other Siberian natives, they are passion-
ately fond of it. But while others, the Chukchee among them, mainly smoke
tobacco, very few smokers are found among the Koryak. Generally they
chew it, more rarely they snuff it, or they use it in both ways. They use
strong Russian leaf-tobacco, imported from the south of European Russia, in
bunches of about two pounds each.

For both chewing and snuffing, the tobacco is ground with ashes.
[137] Fig. 113 shows a wooden mortar with a pestle for grinding tobacco. When
grinding the tobacco, dried leaves of cudweed (*Gnaphalium uliginosum* L.)
are often added,

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are often added. Ground tobacco is kept in birch-bark tobacco-boxes, which are suspended from the belt in skin cases. These cases are often embroidered with glass beads (see Fig. 133). When chewing, the pinch of tobacco is placed between the cheek and the jaw-bone. When thus used, the tobacco causes an abundant flow of saliva, and therefore the Koryak constantly expectorate.

276

Tobacco-leaves are also used for chewing. In this form, tobacco does not irritate the mucous membrane of the mouth as much as when ground. The use of it rolled, however, is more economical. A rolled piece of a leaf will last for a long time. After having tobacco in the mouth for a time, the Koryak takes it out and puts it behind his ear, as we do with a pencil, and then continues to chew it afresh a few minutes later.

276 177

I saw very few Koryak smoking, at least among those of Penshina Bay: therefore very few pipes are found. They manufacture very few themselves. Thus the large pipe repres-

Fig. 114 ($\frac{2}{3}\frac{1}{1}\frac{1}{1}$). Tobacco-Pipe. Length, 71 cm.

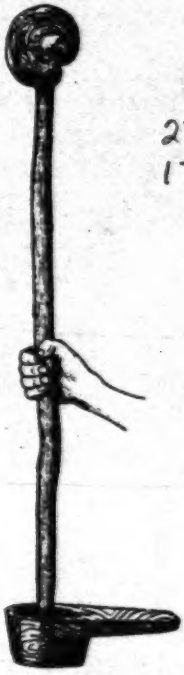

Fig. 113, ($\frac{1}{3}\frac{1}{1}\frac{1}{2}$). Tobacco Mortar and Pestle. Length of pestle, 103 cm.

ented in Fig. 114, purchased in the village of Kamenskoye, had been bought from the Chukchee, and resembles the large Eskimo pipes of this type. The pipe shown in Fig. 185, *c*, had been obtained on the coast of Bering Sea. I saw a few small copper pipes that had been imported by merchants from Vladivostok: these are of Chinese origin. For smoking-purposes, tobacco is cut up fine with an ordinary knife on a board, and mixed with finely cut aspen bark.

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BAGS FOR KEEPING CLOTHING. — The Koryak keep their reserve clothing in bags made of the skins of ringed-seals, of spotted seals, or of ribbon-seals. The skins are dressed on the flesh side, and the hair is left on. The bags are made with the hair side out, and, like those of the Eskimo, are of two shapes, — wide bags with a top opening, which is tied with thongs; and elongated bags, resembling a seal in shape, or made of an entire seal-skin, the flippers of which are sewed up. The openings of bags of this kind are slit across the chest and laced up.[1] The Maritime Koryak keep articles not in use, and spare clothing, in such bags, in the houses or in storehouses. In the houses these bags, with their contents, serve as pillows. In winter, bags containing summer clothing are kept in the storehouses; and in summer the winter clothing is kept in the same way. Funeral clothing not fully finished is also kept in storehouses.

Fig. 133 (1187). Embroidered Pouch.

BELTS. — Women very rarely wear a belt. Embroidered carrying-straps[2] belong to the funeral clothing of women. The belt, however, forms part of the funeral dress of men.[3] This points to the fact that the belt has been used by male Koryak for a long time. The Koryak gird up their house-coats and their short travelling-coats with their belts. The long fur travelling-coats, or the overcoats of leather or imported cloth, are worn without belts (see Plate XXXII, Fig. 1). The belt consists of a dressed strap of thong-seal skin, two or three fingers wide, with a large iron buckle.[4] In ancient times, buckles were made of ivory, and these may be seen even now. On the belt hangs a small belt-knife in a sheath, a case embroidered with glass beads containing a birch-bark tobacco-box, and often iron tweezers for pulling out hair (Fig. 133). These tweezers seem to me to have been adopted from the Tungus. Among the Maritime Koryak, belts are frequently embroidered with glass beads (see Fig. 202).

[1] See illustrations in Bogoras, The Chukchee, Vol. VII of this series, p. 192; and Nelson, p. 44.
[2] See Part I, Fig. 54, p. 109. [3] Ibid., Fig. 46, p. 106. [4] See Fig. 205.

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its use for drilling holes; but it is certain that the Koryak, prior to the introduction of iron, were already using either a stone or a bone bow-drill to bore holes with. It may be supposed that the holes in stone ear-rings must have been made by means of the drill.

Fig. 146 represents a saw made by the Reindeer Koryak for cutting reindeer-antlers. It is made of sheet-iron by means of a file, after the pattern of imported steel saws. The teeth of the saw are very uneven.

Nearly the whole of the Koryak blacksmith's work is confined to the iron tools above described. I should mention, in addition, the manufacture of kettles from imported sheet-iron by Koryak artisans. They beat these kettles out with hammers, and the bottoms are fastened on with mortise-locks, in imitation of the imported kettles, so that they arew ell suited for cooking-purposes. They do not make tin teapots, as they cannot solder on the spouts. The blacksmiths also make pick-axes for picking ice-holes, marline-spikes, awls for sewing dog's harness, scrapers for dressing skins,[1] paring-chisels, bracelets, and needle-holders.[2]

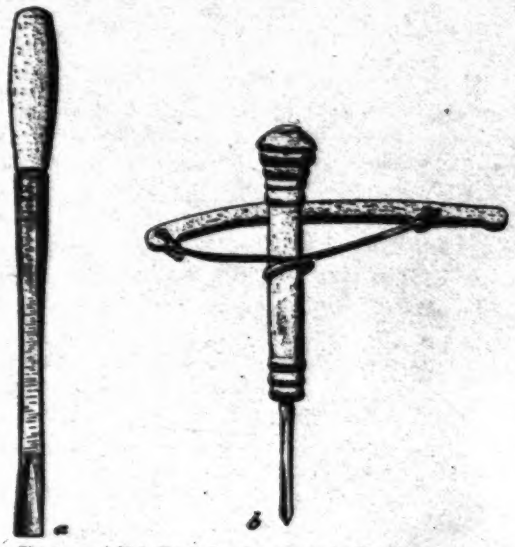

Fig. 145. *a* (1/11.5), Chisel (length, 25 cm.); *b* (1/11.5), Drill (length of drill, 30 cm.).

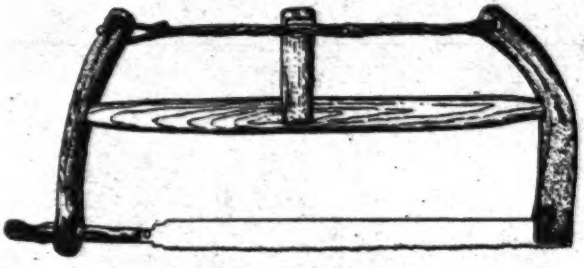

Fig. 146 (1/11.5). Saw. Length, 47 cm.

[1] See Fig. 189, *a*.

[2] See also iron fish-hook (Fig. 79, p. 534), harpoon and arrow heads (pp. 546, 559), bird-dart (Fig. 95, p. 558), armor (p. 562), picks (p. 578), and ice-creepers (Fig. 30, p. 605).

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or larch boards, about half a metre long and 15–20 cm. in width, planed off with an adze. On the reverse side, figures representing human beings and animals, and other ornaments, are carved out with a knife.[1] The small pieces of white and black fur for making up patterns on clothing and rugs are cut on small ornamented boards with a wide notch in the middle, on which are wound the embroidered fur strips for trimming coats.[2]

Fig. 152 represents an ornamented double wooden trinket-box with a connecting hollow bar around which embroidered fur strips are wound. The two small boxes serve for holding needle-cases, thimbles, slittingtool, patterns, and other trifles. The wooden lids are fastened to the outer sides of the boxes with leather strips instead of hinges. They are closed by a sinew-thread which passes from one lid to the other through the hollow bridge connecting the two boxes.

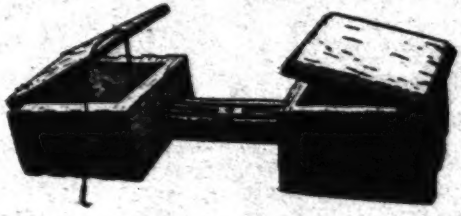


Fig. 152 ($\frac{1}{11}\frac{1}{12}$). Carved Trinket-Box. Length 30.3 cm.

Thread is still made of reindeer-sinew. For sewing-purposes the thin threads of the dorsal sinews are used, while the thick sinews taken from the legs serve to make ropes for netting and for basket-weaving. The sinew is pounded with a stone hammer on a stone table, and combed like flax with a bone comb; then threads or ropes of the desired thickness are twisted out of the thin fibre thus obtained.

Plate XXXVII shows women of the Maritime Koryak sitting sewing and cutting by the dim light of an oil lamp. On the right side a boy is sitting on the log which separates the sleeping-space from the middle of the house; a girl with her sewing, and a woman with a child, are sitting behind the log, on skins, under the raised cover of the sleeping-tent. On the left are seated a girl, and a woman with a cutting-board. Above are hanging clothes, foot-wear, and a fur rug. The sewing of reindeer-skin rugs will be described later on.[3]

Dyes. — The Koryak use a variety of dyes for dyeing skins, animal hair or fur for ornaments, and thread for weaving bags and baskets. For black or dark dyes they employ sea-mud, a decoction of swamp-moss and pounded coal mixed with fish-glue, or a decoction of berries of *Empetrum nigrum* with burned grass of *Elymus mollis*. With the first two is dyed the bark of the willow-herb (*Epilobium angustifolium*), of which bags are woven. Previous to being twisted into thread, this bark is soaked in sea-mud gathered on the coast after high tide, or in a hot decoction of swamp-moss.

[1] See Fig. 194. [2] See Fig. 196, *a*, *b*. [3] See Chapter XI.

1: Jochelson E-5 (1900-01) 1908 RJ4 Koryak RY4

The spinning of the thread for weaving from these plant and sinew fibres has not advanced beyond the method of a cobbler preparing his waxen end. The twisting is done with the palms of the hands,[1] and a long thread is obtained by twisting together separate parts. Fig. 154 represents a wooden reel on which is wound the sinew-thread for weaving. Similar skeins are made of the threads of plant-fibres.

When a Koryak woman comes into possession of imported flax, hemp, or cotton thread or cord, she uses it by mingling it in her work with home-made material, so that stripes of one and the other material alternate. Sometimes it happens that a Koryak woman purchases linen cloth, unravels it, and twists the ravellings into cord for weaving.

Fig. 154 ($\frac{1}{3}$). Wooden Reel. Length, 29 cm.

Among the Koryak, as among the Alaskan Eskimo, we find coiled and twined basketry; but in the majority of cases the work of the Koryak is better, and their methods are more varied, than those of the Eskimo.

Fig. 155 represents one of the varieties of coiled baskets. They are

Fig. 155, *a* ($\frac{1}{2}$), *b* ($\frac{1}{3}$). Coiled Baskets. Height, 13 cm., 8 cm.

children's baskets, made of *Elymus mollis;* but larger-sized baskets of the same shape are used by women for berry-picking. Fig. 156 represents one square inch of Fig. 155, *a*, enlarged. As may be seen, the work is done

[1] It is interesting to note that an improved method of twisting thread is employed by the Yakut women, who twist with the palm of the right hand on the bare thigh. The origin of this method is explained by the Yakut woman's dress, the lower part of which consists of three pieces, — short trousers, knee-piece, and boots. In working thread, the Yakut woman takes off the knee-piece of the right leg, and, raising her coat, twists on her bare thigh.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

285
415

quite roughly, and differs in no way, in material and device, from the same kind of basket-work of the Alaskan Eskimo, which has been described by Mason.[1] Bunches of straw are used for the body of the coil. In whipping each coil with a straw thread, the upper part of the lower coil is caught in, thus fastening the coils together. The straw whipping-thread is passed through the bunches of straw that serve as the foundation by means of a bone or iron awl. As may be seen from the illustration, the women do not observe any regularity in passing the binding through the lower coil. In whipping they pass the thread either through the lower coil or into the interval between two coils, just as the Alaskan Eskimo[2] do.

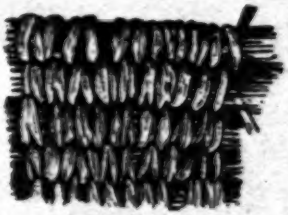
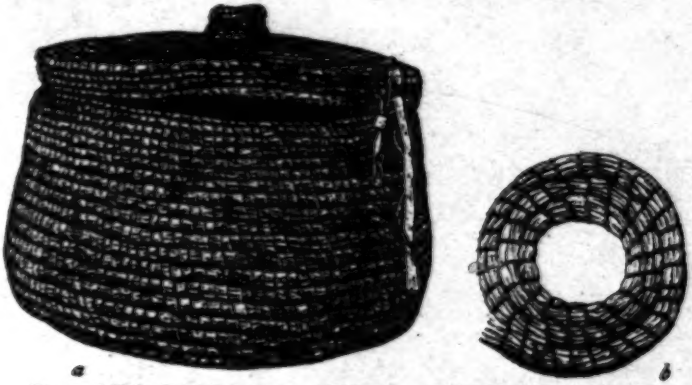


Fig. 156 ($\frac{1}{3}\frac{1}{1}\frac{1}{7}$). Technique of Coiled Basket-Work.

The ornamentation of this kind of baskets is made with straw dyed black or red, which is used for whipping the coils, and alternates rhythmically with undyed straw thread (see Fig. 155, *b*).

These baskets are circular in section, and the diameters of the circles grow smaller in size going upward. The rim usually consists, not of straw,



a *b*

Fig. 157 ($\frac{1}{3}\frac{1}{1}\frac{1}{2}$). Coiled Grass Basket. Height, 14 cm. *b*, Detail from bottom of basket.

but of a willow rod coiled with sinew thread instead of straw thread. The lid is separate, and is fastened to the basket with a small strap. On the opposite side, straps for closing the basket are fastened.

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[1] See Mason, Aboriginal Basket-Work, Figs. 5, 6, p. 295.

[2] For a sample of cleaner work and regularity of stitches, see the Zuñi coiled basket-jar in Mason's Aboriginal Basket-Work, Plate XLIX, Fig. 81) and the fabrics from a cave in Kentucky (Holmes, Prehistoric Textile Fabrics of the United States derived from Impressions on Pottery, in the Third Annual Report of the Bureau of Ethnology 1881–82, Fig. 67, p. 403).

1: Jochelson E-5 (1900-01) 1908 Ry4 Koryak RY4

Fig. 157 represents a type of coiled basketry made of *Elymus mollis;* but the coils of straw are whipped with twisted sinew thread, and not with straw thread. In *b* a part of the bottom of the basket is shown on a larger scale. The straw coil forms a spiral. The coils are whipped and held together by a sinew thread, also without any regularity, like the straw thread in the preceding figure. The whipping is done with a bone needle like the one shown in Fig. 150, *a*.

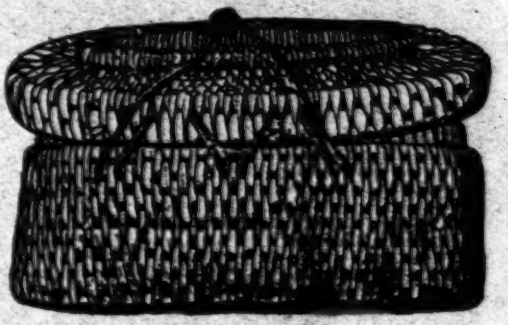

Fig. 158 (1/8). Coiled Basket made of Willow-Roots. Width, 22 cm.

Fig. 158 represents a basket made of willow-roots on the river Opuka. The material for whipping consists of splints of willow-roots. This basket, too, belongs to the coiled type, but differs from the two preceding figures in the style of coiling. Rods made of willow roots or branches form the warp. Beginning from below, the splint of the root whips two rods of

Fig. 159 (1/8). Unfinished Bag of Nettle-Fibre. *b*, Detail of weaving.

the warp at once. In this process a space equal to the width of the splint is left between each whipping. Then a third rod is added above, and is fastened to the second rod in the same manner, but so that the stitches pass under the second rod between the stitches joining the first pair of rods.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

determining the ornamental style of the bag. The weaving is done by twining two woof-threads over the warp. The end of the woof is gathered in a skein and undone according to need. The weaving continues round the sack from right to left.

Fig. 160 represents flat bags like those on the preceding figure, but finished. In *b* a strip of seal-skin is stitched around the opening of the bag. It is sewed with sinew-thread to the last woof-threads, to which are also fastened the loose ends of the warp. This bag has never been in use, and in the skin strip at the opening are no holes through which to pass the thong which is to close the bag when full (Fig. 160, *a*). The workmanship of these bags exhibits great taste and skill. The ornamentation of the bag is made as follows: at certain intervals among the nettle-threads of the warp there run three threads of sinew, dyed black, which thus form narrow black longitudinal stripes between wider stripes of the light-gray nettle. These alternating stripes of various colors make a pleasing impression. The width of the light stripes varies; and this somewhat disturbs the impression which the ornamentation would produce on the eye if it were executed with greater regularity. The bag is further ornamented with bunches of colored crewel, which are caught in the twining, forming tassels similar to those shown in Fig. 199, *a*. This ornament forms three cross-stripes. Of these, the lower two consist of three rows; the upper one, of four rows.

On the bag marked *a*, instead of the bunches which form the cross-stripes, there is an embroidery of crosses in colored wool, the regular arrangement of which produces a very pleasing effect. The black cross-stripes consist of threads made of the outer bark of *Epilobium angustifolium* dyed in sea-mud.[1] To this bag is attached a woman's carrying-strap or head-band.

The twined bags here described serve for carrying goods on foot-journeys. Women carry them by means of a head-band; men, by means of a chest-yoke.[2] In them women also carry children (see Plate XXXVI). In the Koryak tongue every bag or basket is called apke'lin; baskets with ornamentation, kele'-a'pkel ("ornamented baskets"); while the coiled baskets described before are called tene'-apke'lin ("sewed basket").

Fig. 161 (1/3). Technique of Twined Basketry.

Fig. 161 shows the method of weaving close-twined baskets. *Elymus mollis* is pre-eminently the material used for this purpose; but the work on them is more perfect than the work on coiled baskets of the same straw. The warp is formed by threads of twisted straw of *Elymus mollis*. The weaving is done by twining

[1] See p. 648. This method of dyeing textile material black is found also among the Haida (see Mason, Aboriginal Basket-Work, p. 297).

[2] See p. 606.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

285 with two straw threads. This method of weaving produces a texture dense, waterproof, and yet flexible and not coarse. Fig. 162 shows three baskets ● 415 woven by this method. The ornamentation of these sacks is obtained by [386] weaving in threads of *Epilobium angustifolium* dyed black. In *a* the threads from this grass have been dyed in a decoction of swamp-moss. To this dye is added a little fish-oil, which gives it a glossy hue. Bags woven in the way here described vary in size. They are used chiefly as women's work-bags. In the majority of cases the upper part (a third or a half) of the

Fig. 162, *a* (1/11), *b* (1/11), *c* (1/11). Water-tight Baskets. Height, 20 cm., 17 cm., 8.5 cm.

bag consists of reindeer or seal skin stitched to the woven part, as shown in *a* and *b*. Around Penshina Bay the Koryak women, among whom I collected all the above-described specimens of basket-work, do not weave (at least at present) any grass mats; but the Koryak of northern Kamchatka, like the Kamchadal, make grass mats. Fig. 163 represents a grass basket for berries, of the Koryak of northern Kamchatka, which is of cylindrical shape, and is made in twined weaving. In neatness, workmanship, and ornamentation, the basket recalls the best specimens of Indian basketry of the North Pacific coast.

285 Mr. Bogoras has collected in northern Kamchatka a few grass bags which show a different technique. They are made throughout of braids of grass. The bottom is formed by a long narrow strip of skin, to one end of which

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

drawings of illustrated magazines, which may have influenced him; but his skill and his native artistic instinct were inherited by him from Koryak ancestors.

In explanation of Fig. 183, I should add that the dog-harnesses, central line, and the lashings of the sledge, were made by Fletcher of leather. For the figure of the driver he made a wooden head with a face showing very well the Koryak type. The figure is dressed like other Koryak dolls.

Household Articles ornamented with Carved Figures. — I have stated before that carvings were less frequently of practical use among the Koryak than among the Eskimo. Nevertheless small household articles ornamented with carved figures of men and animals, such as we find among the Eskimo, are also to be found among them. Figs. 184 and 185 are reproductions of such articles.

Fig. 184, *a*, is a dipper made from alder-wood in the settlement of Big Itkana (Penshina Bay). The handle of the dipper shows a carving representing

Fig. 184. Carved Dipper and Spoons. *a* ($\frac{1}{5}\frac{1}{5}\frac{1}{5}$), Dipper with Carving representing Wrestlers (length, 16.5 cm.); *b* ($\frac{1}{2}\frac{1}{8}\frac{1}{7}$), Spoon with Carving representing Mountain-Goat (length, 25 cm.); *c* ($\frac{1}{5}\frac{1}{5}\frac{1}{5}$), Spoon with Carving representing Two Bears (length, 14.5 cm.).

two wrestlers. Only the upper parts of the bodies are shown. Fig. 184, *b*, represents a spoon made on the shores of Bering Sea, from the horn of mountain-sheep. Fig. 184, *c*, was made from mountain-sheep horn in Alutor (Bering Sea). The handle is ornamented with carvings representing two bears.

Among small articles ornamented with carved animals, our collection contains also belt-clasps with the figures of two seals, and a pipe with the figure of a seal, made from walrus-tusk in Kamenskoye (Penshina Bay).

Fig. 185 is also a reproduction of specimens of carvings made for ornamental purposes. That marked *a* represents a snow-beater made from antler of wild reindeer by a Reindeer Koryak of the Opuka River, and is ornamented with a carved head of a mountain-sheep; *b* represents an awl used by women in ornamenting their dress with slit-embroidery.[1] The handle of the awl was carved from wood in Big Itkana (Penshina Bay), and the orna-

[1] See p. 679.

22:Barrett-Hamilton and Jones--290 N-2 (1897) 1898 Koryak

116, 372, 415

"We did not see many of the household implements or weapons of these people. [the natives of Karaga village--Analyst] Besides knives, however, they all carried small leather bags, containing a piece of flint and tinder, and a heart-shaped piece of wood hollowed out to receive one or the other when a fire was to be lit."

22:Barrett-Hamilton and Jones--297 N-2 (1897) 1898 Koryak
116, 177, 281, 415

"They [the natives of Karaginski Island--Analyst] keep their more precious or breakable household goods in bags, beautifully constructed either of the skin of the common hair seal (Phoca largha) or of the rare ribbon seal (Phoca equestris). One of the bags made of the latter skin we secured, and we were told that the species occurs on the Pacific coast of the island. In one of these bags we found a rough wooden box containing some writings in Russian, which we were unable to read, but which may have been left by the crew of the schooner by whom the log hut was built. [see p. 293--Analyst]."

22:Barrett-Hamilton and Jones--297 [2] N-2 (1897) 1898 Koryak
116, 281, 415, 501

"The skins of the walrus and of a larger species of seal which occurs here [on Karaginski Island--Analyst] —perhaps Phoca barbata—were kept stretched on frames for use in the manufacture of the skin boats, which will be described below.

Other implements which we noticed were snowshoes; a wooden tripod to stand over a fire, having wooden flesh-hooks suspended to it; a wooden ladle; and some bone knives, which are used for killing seals or other game when wounded."

2: Schrenck--690 E-5 (1854-1856) 1881-1895 RX2 Gilyak RX2
Chukchee RY2
Koryak RY4
Aleut NA6
Eskimo ND2

/450 cont./

000 G 323 191 K C 323 415 C [439] 000 was a train-oil lamp shaped by hand. Also, with regard to the Koryak and Chukchee, the aforementioned travelers, as well as Nordenskjöld and others, know only of the making of eating and drinking vessels out of wood, bone, etc., but do not report any of fired clay. The earthenware pots that the members of the Vega Expedition saw among the Chukchee were of American or European origin (4). Similarly, Weniaminof notes about the Aleut that they

C [113]

4. Nordenskjöld, Die Umsegelung Asiens und Europas auf der Vega, Leipzig, 1882, Vol. II, p. 122.

G 323 191 A 323 439 had only such earthenware utensils, cups, plates, etc., as they had occasionally obtained from the Russians (5). The making of

A [113]

5. Veniaminov", Zap. ob" ostrov. Unalashkinskago otdiela, Part II, p. 238.

G 323 191 E 323 pottery is carried on as an ancient art by only one Paleo-Asiatic people, the Eskimo of northwestern America, for instance, on Kadjak Island (6), along the Kuskokwim and Kwichpak (7), on

E [113]

6. Dvukratn. putesh. v" Ameriku morsk. ofitser. Khvostova i Davydova, St. Petersburg, 1812, Vol. II, p. 104.

E [113]

7. Wrangell /Vrangel'/, "Statist. und ethnogr. Nachrichten über die Russ. Besitz. an der Nordwestküste von Amerika /Statistical and Ethnographic Reports on the Russian Possessions on the Northwest Coast of America/" (Beitr. zur Kennt. des Russ. Reichs, ed. by Baer and Helmersen, Vol. I, p. 147). Zagoskin", Peshekhodnaia opis' chasti russk. vlad. v" Amerikie /A Foot Traveler's Description of Part of the Russian